

# **Great Lakes Piping Plover: Status of the Population & Recovery Program**



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# **What measures of abundance and productivity do you collect in your area?**

- In the Great Lakes we attempt to locate and individually band as much as the population as possible so we believe over 90% of the adults in the population have at least a partial band combination each year.
- Because of this and wide survey efforts we probably come close to the true population size each year (though a few are undoubtedly missed).
- We also monitor all of the nests that are located so we also have accurate measures of number of chicks fledged and chicks fledged per pair.

# Banding Program

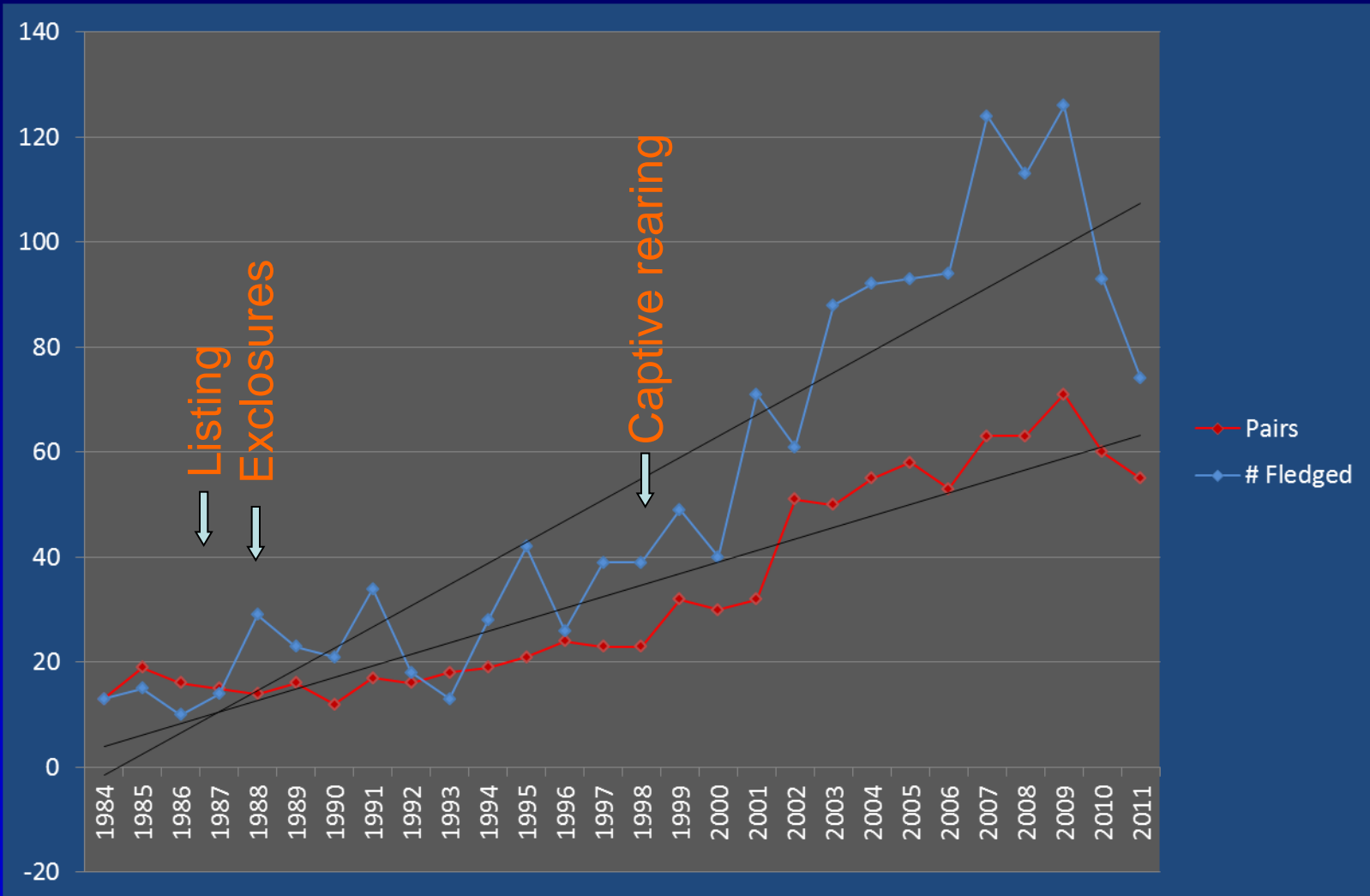
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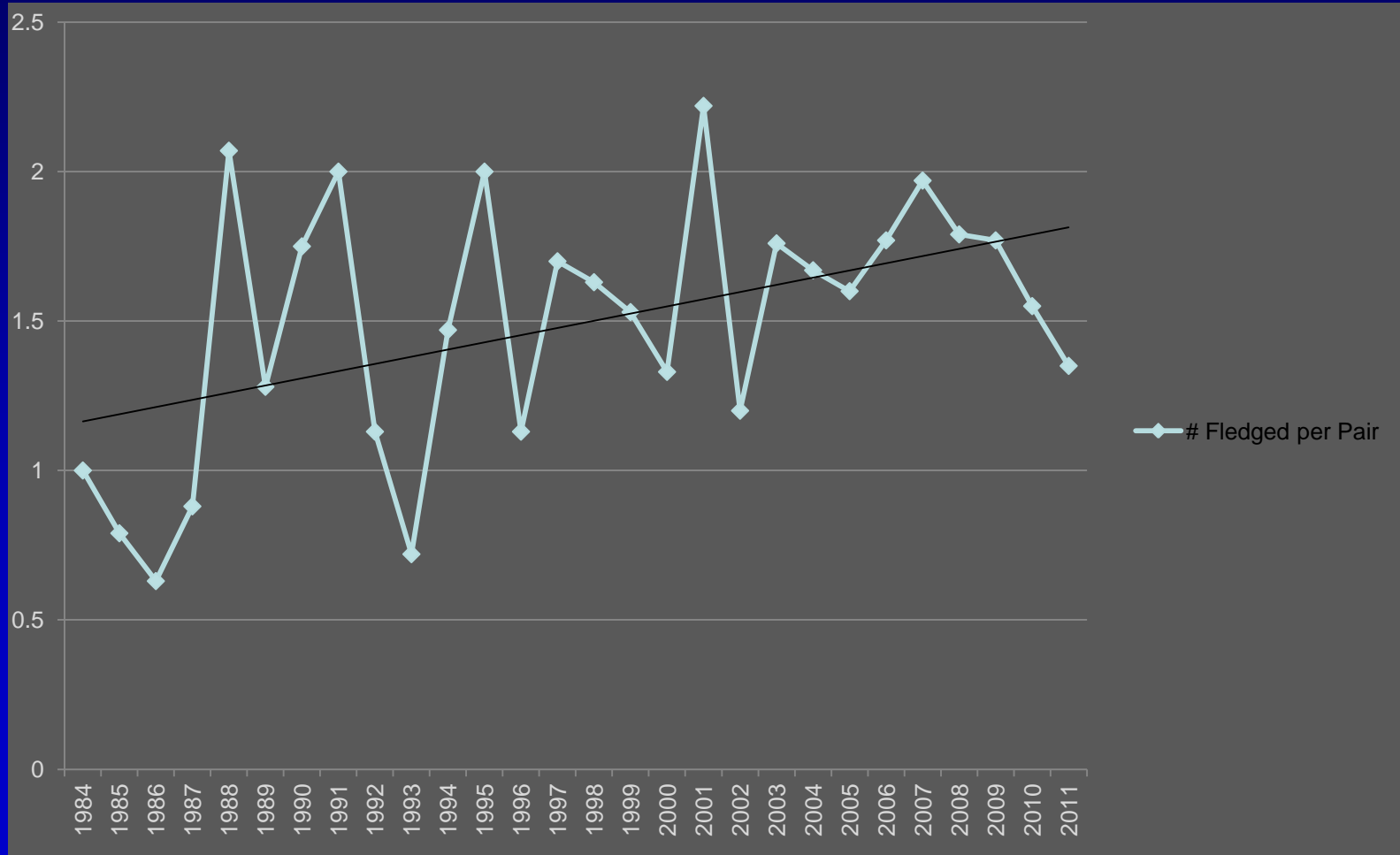
## 2010 Season Summary

- 78% of nesting adults uniquely banded (n = 91 of 117)
- 96% of nesting adults had at least a partial band combo (n=112 of 117)
- 96% of fledged chicks banded (n = 90 of 94)
- 126 chicks banded in 2010

# What do these trends show?



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**What are the key habitat features that influence number and distribution of plovers in your area and how much do those features vary within and among years?**

- Great Lakes piping plovers breed on wide sandy Great Lakes beaches that are sparsely vegetated.
- These areas are normally associated with wide, unforested systems of dunes and inter-dunal wetlands, a unique habitat type restricted to the Great Lakes basin.
- Despite the presence of large inland lakes, rivers, and reservoirs in the Great Lakes region, Great Lakes piping plovers don't seem to utilize these types of habitats like NGP plovers do.

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- Habitat can change as beaches widen and narrow based on changing water levels in the Great Lakes as well as from storm events.
- Recent low lake levels have led to larger amounts of plover habitat in some parts of the Great Lakes but this is also partially offset by vegetation encroachment and increased development.



# **What information currently exists on how plovers in your area interact with the larger NGP population?**

- The Great Lakes population has limited contact with the NGP population.
- One male from the NGP did attempt to breed with a Great Lakes female this past summer in the U.P. of Michigan, however they were not successful.
- I believe this is only the second time a NGP bird has been found attempting to breed in the Great Lakes. Though we do occasionally have birds from the NGP that pass through during migration.
- The majority of Great Lakes birds winter farther east than most of the NGP population.

# The NGP plover that nested at Port Inland



**What is an additional key piece of information you would like to know about your population? What would be the monitoring tool needed to obtain that information?**

- We seem to lose a lot of first year birds during the initial winter/migratory period.
- It would be helpful to know more about first winter survival and why these birds are not doing well during this time.
- A combination of winter monitoring and perhaps some improvements in satellite marking technology might make it possible to get this information in the future.

# **What is the most serious threat plovers face in your area?**

- I think our biggest threat currently is the recent increases in loss of adults to predators, particularly Merlins. Even the loss of a limited number of adults each year is a serious blow to our critically small Great Lakes population.



# Why the recent declines

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## Hypotheses

- **Wintering ground and migration issues**
  - Hurricanes, winter food supply, etc.
- **Increased merlin predation on adults**
- **Just a natural population swing?**
- **Sex ratio issue**

## Possible responses

- **Change in nest enclosure use or design**
- **Change captive rearing program?**
- **Habitat restoration?**





# Future Challenges and Goals

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## Research

- **Habitat Decision Tool**
- **Disease threat**
- **Breeding/Winter Distribution and Ecology**
- **Sex ratio issue**
- **Merlin and other predator concerns**

## Habitat Protection

- **Private Landowner Guide**
- **Land Acquisition (Whitefish Point?)**

# **Future Challenges and Goals**

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## **Increase Partnerships**

- **State and Federal**
- **NGO's**
- **Volunteer Groups**

## **Long-term Habitat Management and Funding**

- **Long-term Breeding and Wintering Habitat Protection and Management Agreements**
- **Long-term Funding Sources**

